

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/JP2004/005737

International filing date (day/month/year)
21.04.2004

Priority d
21.04.2003

International Patent Classification (IPC) or both national classification and IPC
G02F1/167

Applicant
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2004/005737

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

10/542002

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

JC20 Rec'd PCT/PTO 12 JUL 2005
International application No.
PCT/JP2004/005737

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	10,11
	No: Claims	1-9,12-15
Inventive step (IS)	Yes: Claims	
	No: Claims	10,11
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43*bis*.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43*bis*.1 and 70.9)

see form 210

Re Item V.

1 The following documents are referred to in this communication:

D1 : US 2002/067333 A1 (UNO YOSHINORI ET AL) 6 June 2002 (2002-06-06)

D2 : PATENT ABSTRACTS OF JAPAN, vol. 1997, no. 12, 25 December 1997
(1997-12-25) -&; JP 9 211499 A (TOSHIBA CORP), 15 August 1997 (1997-08-15)

D3 : DE 34 03 713 A (LICENTIA GMBH) 8 August 1985 (1985-08-08)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 1** is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parenthesis applying to this document):

a reflective display apparatus (*e.g. figure 11 and paragraph [0080]*), that creates a display by moving particles, comprising:

a front substrate (*e.g. figure 11(1b)*) and a back substrate (*e.g. figure 11(1a)*);

a plurality of charged particles (*e.g. figure 11(5)*), sandwiched between said front substrate and said back substrate;

a first electrode (*e.g. figure 11(57)*) and a second electrode (*e.g. figure 11(56)*) placed on said back substrate;

a support member (*e.g. figure 11(3)*) provided to keep a distance between said front substrate and said back substrate;

and a colored layer (*e.g. figure 11(8a) and paragraph [0080]*) provided on said back substrate,

wherein reflecting means are provided in a space partitioned by said support member (*e.g. figure 11(8b) and paragraph [0080]*)

and said colored layer is placed in such a way that the surface of a projection of said second electrode on the plane of said back substrate and the surface of a projection of said colored layer on the plane of said back substrate at least contact each other (*e.g. figure 11(56, 8a) and paragraph [0080]*).

2.2 For the sake of completeness, it is pointed out that the use of document D2 (*see e.g. figure 1 and abstract*) or document D3 (*see page 7, line 4 - page 10, line 19; and figures 1, 2*) instead of document D1 would have led to the same result.

3 INDEPENDENT CLAIM 15

- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 15** is not new in the sense of Article 33(2) PCT. Document D1 discloses (the references in parenthesis applying to this document):

An electrophoresis display apparatus (*e.g. figure 11 and paragraph [0080]*) comprising:
a first substrate (*e.g. figure 11(1b)*) and a second substrate (*e.g. figure 11(1a)*) arranged with a predetermined gap in between;
an insulating liquid (*e.g. figure 11(4) and paragraph [0056]*) and a plurality of charged particles (*e.g. figure 11(5)*) enclosed in the gap between these substrates;
a first electrode (*e.g. figure 11(57)*) placed along said first substrate over a relatively wide area of a pixel;
and a second electrode (*e.g. figure 11(56)*) between which and said first electrode a voltage is applied, said electrophoresis display apparatus carrying out a display by applying a voltage to these electrodes and moving said charged particles (*abstract and paragraphs [0127]-[0130]*);
wherein said charged particles are colored in a first color (*paragraphs [0077]-[0080]*),
at least a portion of the area where said first electrode is placed in which the density of said charged particles cannot be kept high is colored in substantially the same color as said first color (*figure 11: overlapping area of the electrodes '56' and '57'; and paragraphs [0113], [0130]*),
at least a portion of the area where said first electrode is placed and in which the density of said charged particles can be kept high is colored in a second color (*figure 11: the portion of the electrode '57' that is not overlapping with the electrode '56'; and paragraphs [0113], [0130]*),
when said charged particles are placed so as to cover said first electrode, said first color is visually recognized (*figure 11 and paragraphs [0127]-[0130]*),
and when said charged particles are attracted to said second electrode and accumulated, said second color is visually recognized (*figure 11 and paragraphs [0127]-[0130]*).

- 3.2 For the sake of completeness, it is pointed out that the use of document D2 (*see e.g. figure 1 and abstract and paragraphs [0027]-[0030]*) or document D3 (*see*

page 7, line 4 - page 10, line 19; and figures 1, 2) instead of document D1 would have led to the same result.

4 DEPENDENT CLAIMS 2-14

Dependent claims 2-14 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

- 4.1 The additional features of **claim 2** (see paragraphs [0077]-[0080], [011]-[0120], [0127]-[0130] and figures 1, 11), **claim 3** (see paragraphs [0113], [0130], and figure 11), **claim 4** (see figure 11(3)), **claims 6 - 9** (see paragraphs [0056], [0113]-[0130], and figure 11) and **claims 12, 13** (see paragraphs [0056], [0078]-[0080], and figure 11) are also included in the reflective display apparatus described in document D1.

Therefore and for the reasons given in section 2.1 above, the subject-matter of **claims 2-4, 6-9 and 12, 13** is not new in the sense of Article 33(2) PCT.

- 4.2 The additional features of **claim 5** (see figure 1(3,5)) are also included in the reflective display apparatus described in document D2.

Therefore and for the reasons given in section 2.2 above, the subject-matter of **claim 5** not new in the sense of Article 33(2) PCT.

- 4.3 The additional technical features of **claims 10 and 11** define slight constructional changes in the reflective display apparatus described in document D1 which comes within the scope of the customary practice followed by persons skilled in the art, especially in the light of paragraphs [0077] and [0080] of document D1, indicating these constructional changes.
- Consequently, the subject-matter of **claims 10 and 11** lacks an inventive step in the sense of Article 33(3) PCT.